



STATEMENT OF BASIS
Page 1 of 4
 BAQ Air Permitting Division

Company Name:	Haile Gold Mine Inc	Permit Writer:	Mareesa Singleton
Permit Number:	TV-1460-0070	Date:	DRAFT

DATE APPLICATION RECEIVED: November 19, 2018; April 8, 2019

FACILITY DESCRIPTION (SIC/NAICS): Gold Mine that will include open pit mining of gold containing ore and an ore processing plant (1041/212221; 1044/212222).

PROJECT DESCRIPTION: Initial Title V OP. Includes construction permit CA (for all sources except PT-10 and PT-11 because they have not been installed and gasoline storage tank 960-TK-003 because it has been removed), CP CB and exemption 1460-0070.01X for relocation of the primary crusher PT-1, conveyors PT-2 and PT-3, the addition new conveyors PT-2A and PT-3A, and the elimination of the reclaim feed system from the coarse ore stockpile. The sources from 1460-0070.02x have been removed and are no longer onsite.

The following sources listed in construction permit CA are insignificant activities:

- PT-8: 2012 Hp diesel emergency generator
- PT-9: 8 Diesel Engine Powered Trailer Mounted Lighting Systems
- PT-17: 149 Hp fire water pump engine
- Tanks 2 – 5: HCl, H₂SO₄, NaOH, and potassium amyl xanthate storage tanks

SOURCE TEST REQUIREMENTS: Testing in accordance with 40 CFR 60 Subpart LL for ID01, in accordance with 40 CFR 63 Subpart EEEEEEE for ID 02.

FACILITY WIDE EMISSIONS*			
Pollutant	Uncontrolled	Controlled	PTE
	TPY	TPY	TPY
Total Lead	1.12E-04	--	1.12E-04
Total Arsenic	6.73E-04	--	6.73E-04
Total Mercury***	3.23E-02	4.98E-03	4.98E-03 <0.14 lb Hg/ton concentrate
Process HCN	0.98	--	0.98
Fugitive HCN from Tailings Pond	4.65	--	4.65
Total HCN (Total of Process and Fugitive)	5.63	--	--
Total HAP (Includes Lead, Mercury, Arsenic and Process HCN)	1.207	1.204	1.204
PM**	97.5	19.7	97.5
PM ₁₀ **	37.3	10.9	37.3
PM _{2.5} **	24.2	5.49	24.2
SO ₂	17.876	17.389	17.876
NO _x	69.37	62.087	69.37
CO	14.37	12.8048	14.37
VOC	3.34	2.66	3.34

*Emission taken from sob for CP CA; **Emissions taken from exemption 1460-0070.01x; ***Emissions take from sob for CP CB



STATEMENT OF BASIS
Page 2 of 4
 BAQ Air Permitting Division

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OPERATING PERMIT STATUS

This facility does not currently have an operating permit but will be issued a Title V Operating Permit. The TV application was timely. Although the facility does not have the potential to emit above the TV major source threshold, in accordance with 40 CFR 63.11640(d), sources subject to this subpart are required to obtain a Title V Operating Permit.

REGULATORY APPLICABILITY REVIEW	
Regulations	Comments/Periodic Monitoring Requirements
Section II.E – Synthetic Minor	Not Applicable: This is a true minor source and is therefore not subject.
Standard No. 1	Applicable: The thermal fluid heater (PT-16) is subject. Not Applicable: The rotary kiln (PT5-A) does not meet the definition of fuel burning operation because the material being heated in the kiln comes into contact with the products of combustion.
Standard No. 4	Applicable: The facility is subject to Sections VII (furnace building), VIII, IX, X, and XII. Section XII(A)(4) requires that metallurgical furnaces greater than 10 tons/hr normal output be tested. This facility will have a melting furnace which is a metallurgical furnace, but its output will be less than 10 tph normal output and so no testing is required.
Standard No. 5	Not Applicable: This facility will not have any of the process operations that are specified by this standard.
Standard No. 5.2	Applicable: The thermal fluid heater (PT-16) is subject. Not Applicable: The rotary kiln (PT5-A) emits less than 5 tpy of NO _x . Not Applicable: Diesel Engines (PT-15) are exempt per Section I.B.6. Not Applicable: Emergency Generator is exempt per Section I.B.1.
Standard No. 7	Not Applicable: This facility is not specified as one of the 28 specific industry types and is in the other industry type category, so the PSD applicability trigger is 250.0 tpy. This facility emits PM, PM _{2.5} , PM ₁₀ , SO ₂ , CO, NO _x and VOC which are PSD pollutants. Facility-wide emissions of each of these pollutants is less than 250.0 tpy.
61-62.6	Applicable: This facility will have non-enclosed operations which are capable of fugitive PM emissions. A fugitive dust plan is required.
40 CFR 60 and 61-62.60	Not Applicable: - The thermal fluid heater (PT-16) is not subject to Subpart Dc because process heaters are not subject. Applicable: - The Primary Crushing and Coarse Ore Handling is subject to Subpart LL. Applicable: - The diesel engines (PT-8, PT-9, PT-15, and PT-17) are subject to Subpart IIII.



STATEMENT OF BASIS
Page 3 of 4
 BAQ Air Permitting Division

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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
	Not Applicable: The facility is not subject to Subpart UUU because it does not meet the definition of a mineral processing plant per 60.731.
40 CFR 63 and 61-62.63	Applicable: - The diesel engines (PT-8, PT-9, PT-15, and PT-17) are subject to Subpart ZZZZ. Applicable: - The facility is subject to Subpart EEEEEEE.
61-62.68	Not Applicable: - This facility will not store any chemicals specified by this regulation above the threshold quantities required to trigger applicability to this regulation (The facility will store 5000 gallons of HCl with a concentration 30%, which is less than the thresholds of 15000 gallons 37% concentration).
40 CFR 64 (CAM)	Not Applicable: This facility is not a major source for PTE and pre-controlled emissions do not exceed any major source threshold

AMBIENT AIR STANDARDS REVIEW

Regulations	Comments/Periodic Monitoring Requirements
Standard No. 2	This facility has demonstrated compliance with these standards by using air dispersion modeling. See modeling summary dated 12/20/17.
Standard No. 8 (state only)	This facility has demonstrated compliance with these standards by using air dispersion modeling. See modeling summary dated 12/20/17. Additionally, the facility is subject to 40 CFR 63 Subpart EEEEEEE.

Standard No. 1 Allowable

ID	PM Allowable (lb/hr)	SO ₂ Allowable (lb/hr)	Uncontrolled Emissions		Controlled Emissions	
			PM (lb/hr)	SO ₂ (lb/hr)	PM (lb/hr)	SO ₂ (lb/hr)
PT-16	7.5	28.75	0.095	0.0075	--	--

Standard No. 4 Allowable

Process	Process Weight Rate (tons/hr)	PM Allowable (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
Gold Extraction Process	380*	65.7	11.54	1.43	Not required for Standard 4 but required per 40 CFR 63 Subpart EEEEEEE for subject sources
Primary Crushing and Coarse Ore Handling	1,000	77.6	9.375	--	Not required because the uncontrolled emissions are less than the allowable; however, the facility is required to have a



STATEMENT OF BASIS
Page 4 of 4
BAQ Air Permitting Division

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Standard No. 4 Allowable					
Process	Process Weight Rate (tons/hr)	PM Allowable (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
Lime Silo Loading No.1	30	40.0	2.30	0.146	dust control plan to control fugitive PM emissions

*The process weight rate is the annualized rate based on operating 8760 hours per year. Weight is the amount of gold and carbon being processed through the Rotary Kiln (PT-5A), Electrowinning Cells (PT-5B) and Refinery (PT-6).

PUBLIC NOTICE

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II.N and SC Regulation 61-62.70.7(h).

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.